

IN THE CLAIMS:

Please amend claims 6, 8-10, 12, 14, 27, 31 and 35-39; and

add new claim 45 as follows.

1-5. (Cancelled)

6. (Currently Amended) A method, comprising:

receiving, in a base station, a time reference signal providing time reference in the
a telecommunication system;

generating an idle period in the transmission of a base station;
determining, in the base station, time characteristics of the idle period relative to
the time reference by performing means of a power measurement on the idle period; and
providing timestamping at least a portion of data to be transmitted from the base
station with time characteristics proportional to the time reference by using time
characteristics of the idle period.

7. (Original) The method of claim 6 further comprising positioning a
mobile station by using time characteristics of the at least portion of data.

8. (Currently Amended) The method of claim 6 further comprising
emitting the idle period from an antenna-unit of the base station; and

determining time characteristics of the idle period such that an uncertainty of a time interval between determining time characteristics of the idle period and emitting the idle period from the antenna-unit of the base station is below a predefined value.

9. (Currently Amended) The method of claim 6 further comprising emitting the idle period from an antenna-unit of the base station; and determining time characteristics of the idle period at a moment of emitting the idle period from the antenna-unit of the base station.

10. (Currently Amended) The method of claim 6, further comprising determining timing of a predefined portion of the idle period relative to the time reference by meansusing of the power measurement; and providingtimestamping the at least a portion of data to be transmitted from the base station with time characteristics proportional to the time reference by using the timing of the predefined portion of the idle period.

11. (Original) The method of claim 6 further comprising determining time characteristics of an idle period in a frame relative to the time reference; providing the frame with the time characteristics proportional to the time reference by using time characteristics of the idle period in the frame.

12. (Currently Amended) The method of claim 6 further comprising emitting the idle period from an antenna-unit of the base station; detecting, in a mobile station, the idle period emitted from the antenna of the base station;

determining the time of arrival of the idle period in the mobile station; and positioning the mobile station by using the time of arrival of the idle period.

13. (Original) The method of claim 6 further comprising synchronizing the transmission of the base station by using the time characteristics of the idle period relative to the time reference.

14. (Currently Amended) A system, comprising:

a base station ~~for providing~~ configured to provide radio transmission and reception for mobile stations;

wherein the base station comprises a time reference signal receiver configured to receive a time reference signal providing time reference ~~in-the-a~~ telecommunication system;

wherein the base station comprises an idle period generator configured to generate an idle period in the transmission of the base station;

wherein the base station comprises a detector operationally connected to the idle period generator and the time reference signal receiver, said detector configured to

determine time characteristics of the idle period relative to the time reference by ~~means of~~
performing a power measurement on the idle period; and

a time stamper operationally connected to the detector configured to provide at least a portion of data to be transmitted from the base station with the time characteristics proportional to the time reference by using the time characteristics of the idle period.

15. (Previously Presented) The system of claim 14 further comprising a positioner operationally connected to the base station configured to position a mobile station by using time characteristics of the at least a portion of data.

16. (Previously Presented) The system of claim 14, wherein the base station comprises an antenna operationally connected to the idle period generator configured to emit the idle period; and

wherein the detector is configured to determine time characteristics of the idle period such that the uncertainty of the time interval between determining time characteristics of the idle period and emitting the idle period from the antenna of the base station is below a predetermined value.

17. (Previously Presented) The system of claim 14, wherein the base station comprises an antenna operationally connected to the idle period generator configure to emit the idle period; and

the detector is configured to determine time characteristics of the idle period at a moment of emitting the idle period.

18. (Previously Presented) The system of claim 14, wherein the detector is configured to determine timing of a predefined portion of the idle period relative to the time reference by the power measurement; and

wherein the time stamper is configured to provide the at least a portion of data to be transmitted from the base station with time characteristics proportional to the time reference by using the timing of the predefined portion of the idle period.

19. (Previously Presented) The system of claim 14, wherein the detector is configured to determine the time characteristics of an idle period in a frame relative to time reference; and

wherein the time stamper is configured to provide the frame with the time characteristics proportional to the time reference by using time characteristics the idle period in the frame.

20. (Previously Presented) The system of claim 14, wherein the base station comprises an antenna operationally connected to the idle period generator configured to emit the idle period;

the telecommunication system further comprising a mobile station configured to detect the idle period emitted from the antenna of the base station;

wherein the mobile station is configured to determine the time of arrival of the idle period; and

wherein the positioner is configured to position the mobile station by using the time of arrival of the idle period.

21. (Previously Presented) The system of claim 14, wherein the base station is configured to synchronize transmission of the base station by using time characteristics of the idle period relative to the time reference.

22-26. (Cancelled)

27. (Currently Amended) An apparatus, comprising:
receiving means for receiving, in a base station, a time reference signal providing time reference in the telecommunication system;
generating means for generating an idle period in the transmission of a base station;

determining means for determining, in the base station, time characteristics of the idle period relative to the time reference by means of performing a power measurement on the idle period; and

providing time stamping means for providing at least a portion of data to be transmitted from the base station with time characteristics proportional to the time reference by using time characteristics of the idle period.

28. (Previously Presented) The apparatus of claim 27 further comprising positioning means for positioning a mobile station by using time characteristics of the at least portion of data.

29. (Previously Presented) The apparatus of claim 27 further comprising emitting means for emitting the idle period from an antenna of the base station; and second determining means for determining time characteristics of the idle period such that an uncertainty of a time interval between determining time characteristics of the idle period and emitting the idle period from the antenna of the base station is below a predefined value.

30. (Previously Presented) The apparatus of claim 27 further comprising emitting means for emitting the idle period from an antenna of the base station; and second determining means for determining time characteristics of the idle period at a moment of emitting the idle period from the antenna of the base station.

31. (Currently Amended) The apparatus of claim 27 further comprising second determining means for determining timing of a predefined portion of the idle period relative to the time reference by means of the power measurement; and

~~second~~—providing means for providing the at least a portion of data to be transmitted from the base station with time characteristics proportional to the time reference by using the timing of the predefined portion of the idle period.

32. (Previously Presented) The apparatus of claim 27 further comprising second determining means for determining time characteristics of an idle period in a frame relative to the time reference;

second providing means for providing the frame with the time characteristics proportional to the time reference by using time characteristics of the idle period in the frame.

33. (Previously Presented) The apparatus of claim 27 further comprising emitting means for emitting the idle period from an antenna of the base station;

detecting means for detecting, in a mobile station, the idle period emitted from the antenna of the base station;

second determining means for determining the time of arrival of the idle period in the mobile station; and

positioning means for positioning the mobile station by using the time of arrival of the idle period.

34. (Previously Presented) The apparatus of claim 27 further comprising synchronizing means for synchronizing the transmission of the base station by using the time characteristics of the idle period relative to the time reference.

35. (Currently Amended) An apparatus, comprising:

a time referencing signal receiver configured to receive a time reference signal providing time reference ~~in-the~~a telecommunication system;

an idle period generator configured to generate an idle period in the transmission of a base station;

a detector operationally connected to the idle period generator and the time reference signal receiver, the detector configured to determine time characteristic of the idle period relative to the time reference by performing means of a power measurement on the idle period; and

a time stamper operationally connected to the detector and configured to provide at least a portion of data to be transmitted from the base station with the time characteristics proportional to the time reference by using the time characteristic of the idle period.

36. (Currently Amended) The method of claim 6, further comprising performing the power measurement of the idle period with a gauge located between the base band ~~unit~~portion and the antenna of a base station.

37. (Currently Amended) The ~~telecommunication~~ system of ~~claims~~ claim 14, further comprising a gauge located between the base band-unit portion and the antenna of a base station, wherein the gauge is configured to perform the power measurement on the idle period.

38. (Currently Amended) The apparatus of ~~claims~~ claim 27, further comprising ~~a gauge located power measuring means located~~ between the base band-unit portion and the antenna of a base station, wherein ~~the gauge power measuring means~~ is configured to ~~perform for measuring~~ the power measurement on the idle period.

39. (Currently Amended) The apparatus of ~~claims~~ claim 35, further comprising a gauge located between the base band-unit portion and the antenna of a base station, wherein the gauge is configured to perform the power measurement on the idle period.

40. (Previously Presented) The apparatus of claim 35, further comprising:
an antenna operationally connected to the idle period generator configured to emit the idle period;

wherein the detector is configured to determine time characteristics of the idle period such that the uncertainty of the time interval between determining time characteristics of the idle period and emitting the idle period from the antenna of the base station is below a predetermined value.

41. (Previously Presented) The apparatus of claim 35, further comprising:
an antenna operationally connected to the idle period generator configure to emit
the idle period;
wherein the detector is configured to determine time characteristics of the idle
period at a moment of emitting the idle period.

42. (Previously Presented) The apparatus of claim 35, wherein the detector is
configured to determine timing of a predefined portion of the idle period relative to the
time reference by the power measurement; and
wherein the time stamper is configured to provide the at least a portion of data to
be transmitted from the base station with time characteristics proportional to the time
reference by using the timing of the predefined portion of the idle period.

43. (Previously Presented) The apparatus of claim 35, wherein the detector is
configured to determine the time characteristics of an idle period in a frame relative to
time reference; and
wherein the time stamper is configured to provide the frame with the time
characteristics proportional to the time reference by using time characteristics the idle
period in the frame.

44. (Previously Presented) The apparatus of claim 35, wherein the apparatus is configured to synchronize transmission of a base station by using time characteristics of the idle period relative to the time reference.

45. (New) A computer program embodied on a computer readable medium, said computer program configured to control a processor to perform:

receiving, in a base station, a time reference signal providing time reference in the telecommunication system;

generating an idle period in the transmission of a base station;

determining, in the base station, time characteristics of the idle period relative to the time reference by performing a power measurement on the idle period; and

timestamping at least a portion of data to be transmitted from the base station with time characteristics proportional to the time reference by using time characteristics of the idle period.